20003

PATENT 9/24/52

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT

ARNTZEN, et al

SERIAL NO

09/767,734

FILED

September 29, 2000

TITLE

VACCINES EXPRESSED IN PLANTS

Grp./A.U.

1638

Conf. No.

1914

Examiner

Collins, Cynthia E.

Docket No.

P00245USD

AMENDMENT

Assistant Commissioner for Patents Washington, D.C. 20231

Dear Madam:

In response to the Office Action dated May 29, 2002, please amend the aboveidentified application as follows:

In the Specification

Please replace the paragraph at page 3, beginning at line 4 with the following:

Various avirulent viruses have been used as vectors. The gene for hepatitis B surface antigen (HBsAg) has been introduced into a gene non-essential for vaccinia replication. The resulting recombinant virus has elicited an immune response to the hepatitis B virus in test animals. Additionally, researchers have used attenuated bacterial cells for expressing hepatitis B antigen for oral immunization. Importantly, when whole cell attenuated Salmonella expressing recombinant hepatitis antigen were fed to mice, anti-viral T and B cell immune responses were

CERTIFICATE OF FACSIMILE TRANSMISSION (37 C.F.R. § 1.6(a)(3))

I hereby certify that this document and the documents referred to as enclosed therein are being transmitted via facsimile to: Technology Center 1600 (Art Unit 1635) 703-8/12-9306, Attn: Assistant Commissioner for Patents, Washington, D.C. 20231, on this 20 day of September, 2002.

-Heitit S. Nebel